

# **ABSTRACT**

The refining method of low carbon molten iron comprises the steps of supplying the de-sulfurizing agent into the molten iron and agitating it so as to carry out the de-sulfurization, heating or carburizing the molten iron before or after the de-sulfurizing step, and de-carburizing the de-sulfurized metal in the decarburization treating furnace. The molten iron is produced by charging ores reduced until being metallized in the smelting reduction furnace. As the carbonaceous materials, powder coke, oil coke or waste plastic are used. As the iron source, the sintered ores of small grain size are used.